

**ABSTRACT OF THE DISCLOSURE**

In one embodiment, a computer system includes a first component configured to output data on a bus in response to a request for data from a second component. The data  
5 output by the first component may include both the requested data and unrequested data, and the unrequested data may have an unpredictable value. A controller coupled to the bus may be configured to replace the unrequested data with data that has a predictable value. A signature analysis register included in the second component is configured to capture the requested data and the predictable data output by the controller. Thus, the  
10 signature captured in the second component may be predictable, despite the unpredictable data output by the first component.